UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,006,698 B2
APPLICATION NO. : 10/721947
DATED : February 28, 2006
INVENTOR(S) : King-Wai Chow and Robert Clint Rose

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page, Item (75), in "Inventors", lines 1-8, delete "Matthew James Adiletta, Worcester, MA (US); King-Wai Chow, Marlboro, MA (US); Samuel Williams Ho, Marlborough, MA (US); Robert Clint Rose, Hudson, MA (US); William Ralph Wheeler, Southborough, MA (US); Subramania Iyer Sudharsanan, San Jose, CZ (US)" and insert -- King-Wai Chow, Marlborough, MA (US); Robert Clint Rose, Hudson, MA (US) --, therefor.

On the Title Page, Item (60), under "Related U.S. Application Data", line 4, delete "6,101,275" and insert -- 6,101,276 --, therefor.

On the Title Page, Item (57), under "Abstract", lines 1-14, delete "An apparatus and method for performing two-pass real time video compression is provided. Tactical decisions such as encoding and quantification values are determined in software, whereas functional execution steps are performed in hardware. By appropriately apportioning the tasks between software and hardware, the benefits of each type of processing are exploited, while minimizing both hardware complexity and data transfer requirements. One key concept that allows the compression unit to operate in real time is that the architecture and pipe lining both allow for B frames to be executed out of order. By buffering B frames, two-pass motion estimation techniques can be performed to tailor bit usage to the requirements of the frame, and therefore provide a more appealing output image." and insert -- Method and apparatus for compressing video images are provided. A difference value from a current image and a prior image is calculated and compared against a variable adaptive threshold. If the calculated difference value is less than the variable adaptive threshold, the difference value is subtracted from the variable adaptive threshold to produce a new variable adaptive threshold level, and the video signal is deleted. Otherwise the variable adaptive threshold is reset to a predetermined beginning value, and the video signal is sent to an encoding and transmitting module. --, therefor.

In column 1, line 25, delete "VWR," and insert -- VCR, --, therefor.

In column 2, line 22, delete "(DC)," and insert -- (MC), --, therefor,

In column 2, line 24, delete "(DUCT)" and insert -- (DCT) --, therefor.

In column 2, line 42, delete "BC2," and insert -- B2, --, therefor.

In column 2, line 64, delete "BC2" and insert -- B2 --, therefor.

In column 3, line 51, delete "pipeline" and insert -- pipelined --, therefor.

In column 4, line 47, delete "quantification" and insert -- quantization --, therefor.

In column 5, line 2, delete "VCD" and insert -- VCDU --, therefor.

In column 5, line 28, delete "DUCT" and insert -- DCT --, therefor.

In column 5, line 36, delete "quantification" and insert -- quantization --, therefor.

In column 5, line 38, delete "quantification" and insert -- quantization --, therefor.

In column 7, line 44, delete "P4 B3" and insert -- P4 B5 --, therefor.

In column 13, line 35, delete "MC" and insert -- DC --, therefor.

in column 13, line 37, delete "MC" and insert -- DC --, therefor.

In column 13, line 43, delete "Intra_MC" and insert -- Intra_DC --, therefor.

In column 13, line 61, delete "MC" and insert -- DC --, therefor.

In column 14, line 12, delete "MC" and insert -- DC --, therefor.

In column 14, line 13, delete "MC" and insert -- DC --, therefor.

In column 14, line 43, delete "MC" and insert -- DC --, therefor.

In column 16, line 49, delete "quantification" and insert -- quantization --, therefor.

In column 16, line 51, delete "quantification" and insert -- quantization --, therefor.

In column 16, line 52, delete "DUCT" and insert -- DCT --, therefor.

In column 16, line 53, delete "DUCT" and insert -- DCT --, therefor.

In column 20, line 16, delete "S" and insert -- S_1 --, therefor.

In column 22, line 33, in equation 7, delete " $d=|v_y(i)-v_y(0)|+|v_x(i)-v_x(0)|$ " and insert -- $d=|v_y(i)-v_y(0)|+|v_x(i)-v_x(0)|$ --, therefor.

In column 23, line 47, delete "quantification" and insert -- quantization --, therefor.

In column 23, lines 49-50, delete "quantification" and insert -- quantization --, therefor.

In column 23, line 62, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 3, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 4, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 10, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 30, delete "quantification" and insert -- quantization --, therefor.

In column 24, lines 32-33, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 36, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 37, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 48, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 49, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 63, delete "quantification" and insert -- quantization --, therefor.

In column 24, line 65, delete "quantification" and insert -- quantization --, therefor.

In column 25, line 4, delete "quantification" and insert -- quantization --, therefor.

In column 25, line 17, delete "quantification" and insert -- quantization --, therefor.

In column 25, line 24, delete "quantification" and insert -- quantization --, therefor.

In column 25, line 27, delete "quantification" and insert -- quantization --, therefor.

In column 25, lines 59-60, delete "quantification" and insert -- quantization --, therefor.

In column 25, lines 62-63, delete "quantification" and insert -- quantization --, therefor.

In column 26, line 2, delete "quantification" and insert -- quantization --, therefor.

In column 26, line 31, delete "quantification" and insert -- quantization --, therefor.

In column 26, lines 45-46, delete "quantification" and insert -- quantization --, therefor.

In column 26, line 53, delete "quantification" and insert -- quantization --, therefor.

In column 26, line 60, delete "quantification" and insert -- quantization --, therefor.

In column 26, line 63, delete "quantification" and insert -- quantization --, therefor.

In column 27, line 39, in equation 9A, delete "2(y+1)uII" and insert -- 2(y+1)vII --, therefor.

In column 27, line 45, in equation 9B, delete "2(v+l)vII" and insert -- 2(y+1)vII --, therefor.

In column 27, line 52, delete "IMCT" and insert -- IDCT --, therefor.

In column 27, line 62, delete "MC" and insert -- DC --, therefor.

In column 27, line 64, delete "quantification" and insert -- quantization --, therefor.

In column 27, line 64, delete "Quantification" and insert -- Quantization --, therefor.

In column 28, line 3, delete "Quantification" and insert -- Quantization --, therefor.

In column 28, line 19, delete "quantification" and insert -- quantization --, therefor.

In column 28, line 46, delete "quantification" and insert -- quantization --, therefor.

In column 29, line 12, delete "quantification" and insert -- quantization --, therefor.

In column 38, line 46, delete "quantification" and insert -- quantization --, therefor.

In column 38, line 51, delete "IMCT" and insert -- IDCT --, therefor.

In column 38, line 52, delete "Quantification" and insert -- Quantization --, therefor.

In column 38, line 64, delete "quantification" and insert -- quantization --, therefor.

In column 39, line 8, delete "pipeline" and insert -- pipelined --, therefor.

In column 39, line 21, delete "pipeline" and insert -- pipelined --, therefor.

In column 39, line 64, delete "Pa." and insert -- P4. --, therefor.

In column 43, line 32, delete "T11," and insert -- T10, --, therefor.

In column 44, line 29, delete "quantification" and insert -- quantization --, therefor.

In column 45, line 16, delete "Quantification" and insert -- Quantization --, therefor.

In column 45, line 20, delete "MCT" and insert -- DCT --, therefor.

In column 45, line 26, delete "MCT" and insert -- DCT --, therefor.

In column 45, line 28, delete "Quantification" and insert -- Quantization --, therefor.

In column 45, line 29, delete "Quantification" and insert -- Quantization --, therefor.

In column 47, line 35, delete "quantification" and insert -- quantization --, therefor.

In column 47, line 37, delete "quantification" and insert -- quantization --, therefor.

In column 50, lines 61-62, delete "Quantification" and insert -- Quantization --, therefor.

In column 50, line 64, delete "quantification" and insert -- quantization --, therefor.

In column 50, line 65, delete "quantification" and insert -- quantization --, therefor.

In column 50, line 65, delete "Quantification" and insert -- Quantization --, therefor.

In column 51, line 1, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 4, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 13, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 14, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 15, delete "quantification" and insert -- quantization --, therefor.

In column 51, lines 15-16, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 18, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 22, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 23, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 30, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 32, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 36, delete "Quantification" and insert -- Quantization --, therefor.

In column 51, line 38, delete "Quantification" and insert -- Quantization --, therefor.

In column 51, line 41, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 43, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 56, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 56, delete "pipeline" and insert -- pipelined --, therefor.

In column 51, line 58, delete "quantification" and insert -- quantization --, therefor.

In column 51, line 59, delete "pipeline" and insert -- pipelined --, therefor.

In column 52, line 1, delete "quantification" and insert -- quantization --, therefor.

In column 52, line 3, delete "quantification" and insert -- quantization --, therefor.

In column 52, line 5, delete "quantification" and insert -- quantization --, therefor.

In column 52, line 10, delete "quantification" and insert -- quantization --, therefor.

In column 52, line 14, delete "quantification" and insert -- quantization --, therefor.

In column 53, line 35, delete "MC" and insert -- DC --, therefor.

In column 54, line 25, delete "pipeline" and insert -- pipelined --, therefor.

In column 54, line 28, delete "pipeline" and insert -- pipelined --, therefor.

In column 54, line 29, delete "pipeline" and insert -- pipelined --, therefor.

In column 54, line 31, delete "pipeline" and insert -- pipelined --, therefor.

In column 54, line 53, delete "quantification" and insert -- quantization --, therefor.

In column 54, line 58, delete "quantification" and insert -- quantization --, therefor.

In column 55, line 21, delete "pipeline" and insert -- pipelined --, therefor.

In column 55, line 29, delete "quantification" and insert -- quantization --, therefor.

In column 55, line 53, delete "Quantification" and insert -- Quantization --, therefor.

In column 55, line 57, delete "quantification" and insert -- quantization --, therefor.

In column 59, line 37, delete ""001111s"." and insert -- "00111s". --, therefor.

In column 60, lines 11-12, delete "0101001111" and insert -- 01010 001111 --, therefor.

In column 64, line 51, delete "Y<Be>" and insert -- Y<B3> --, therefor.

In column 65, line 19, delete "Y<Be>" and insert -- Y<B3> --, therefor.

In column 66, line 49, delete "PCIM" and insert -- PCI™ --, therefor.

In column 66, line 55, delete "PCIM" and Insert -- PCI™ --, therefor.

In column 67, line 4, delete "PCITM" and insert -- PCI™ --, therefor.

In column 67, line 11, delete "PCIM" and insert -- PCI™ --, therefor.

In column 67, line 42, delete "PCIM" and insert -- PCI™ --, therefor.

In column 68, line 8, delete "PCIM" and insert -- PCI™ --, therefor.

In column 70, line 61, delete "quantification" and insert -- quantization --, therefor.

In column 70, line 63, delete "quantification" and insert -- quantization --, therefor.

In column 70, line 65, delete "quantification" and insert -- quantization --, therefor.

In column 71, line 23, delete "pipeline" and insert -- pipelined --, therefor.

Signed and Sealed this

Twenty-third Day of March, 2010

David J. Kappos

David J. Kappos
Director of the United States Patent and Trademark Office